

WHAT IS CLAIMED IS:

1. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the vapor-growth carbon fiber being compounded with the film-forming component using a polar organic solvent.

2. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the amount of vapor-growth carbon fiber compounded being 1 to 20 parts by weight based on 100 parts by weight of the film-forming component, and the vapor-growth carbon fiber being compounded with the film-forming component using a polar organic solvent.

3. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin.

4. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the amount of vapor-growth carbon fiber compounded being 1 to 20 parts by weight based on 100 parts by weight of the film-forming component, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin.

5. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the epoxy resin being a bisphenol A diglycidyl ether type epoxy resin.

6. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the amount of vapor-growth carbon fiber compounded being 1 to 20 parts by weight based on 100 parts by weight of the film-forming component, the

carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the epoxy resin being a bisphenol A diglycidyl ether type epoxy resin.

7. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups having molecular weights in the range of not less than 1,000.

8. A composition useful for forming an electroconductive resin comprising a film-forming component and a vapor-growth carbon fiber, the amount of vapor-growth carbon fiber being 1 to 20 parts by weight based on 100 parts by weight of the film-forming component, the carbon

fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups having molecular weights in the range of not less than 1,000.

9. A composition useful for forming an electroconductive resin according to any one of Claims 1 to 8, further comprising a tertiary amine catalyst.

10. A method of producing an electroconductive resin comprising solidifying a composition useful for forming an electroconductive resin by reaction, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the vapor-growth carbon fiber being compounded with the film-forming component using a polar organic solvent.

11. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the vapor-growth

carbon fiber being compounded with the film-forming component using a polar organic solvent.

12. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the amount of vapor-growth carbon fiber compounded being 1 to 20 parts by weight based on 100 parts by weight of the film-forming component.

13. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the vapor-growth carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin.

14. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the amount of vapor-growth carbon fiber compounded being 1 to 20 parts by

weight based on 100 parts by weight of the film-forming component, the carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin.

15. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the epoxy resin being a bisphenol A diglycidyl ether type epoxy resin.

16. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the amount of vapor-growth carbon fiber compounded being 1 to 20 parts by weight based on 100 parts by weight of the film-forming

component, the carbon fiber being compounded with the film-forming component using a polar organic solvent, and the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the epoxy resin being a bisphenol A diglycidyl ether type epoxy resin.

17. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the carbon fiber being compounded with the film-forming component using a polar organic solvent, the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups having molecular weights in the range of not less than 1,000.

18. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the amount of

vapor-growth carbon fiber being 1 to 20 parts by weight based on 100 parts by weight of the film-forming component, the carbon fiber being compounded with the film-forming component using a polar organic solvent, the film-forming component being a mixed component composed mainly of a liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups and an epoxy resin, the liquid acrylonitrile-butadiene rubber having both end-groups substituted by carboxyl groups having molecular weights in the range of not less 1,000.

19. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the vapor-growth carbon fiber being compounded with the film-forming component using a polar organic solvent, and the electroconductive resin having a volume resistivity of not more than $10 \times 10^0 \Omega \cdot \text{cm}$.

20. An electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the vapor-growth carbon fiber being compounded with the film-forming

component using a polar organic solvent, and the electroconductive resin having a coefficient of variation of standard deviation of not more than 10%.

21. An electroconductive sheet made of an electroconductive resin comprising a product from the reaction of a composition, if the reaction is necessary, the composition comprising a film-forming component and a vapor-growth carbon fiber, the vapor-growth carbon fiber being compounded with the film-forming component using a polar organic solvent, and the electroconductive sheet having a thickness of not more than 1 mm.

22. A high polymer compound comprising a product by reaction of a mixture containing as major components at least one compound selected from the groups consisting of liquid acrylonitrile - butadiene rubbers each having both end-groups substituted by carboxyl groups, liquid styrene - butadiene rubbers, liquid polybutadiene, liquid polyisoprene, and liquid polychloroprene, and at least one compound selected from epoxy resins such as bisphenol A diglycidyl ether type epoxy resins, bisphenol F diglycidyl ether type epoxy resins, and phenol novolac type epoxy resins.